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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Regarding Broadband Infrastructure Deployment and to Support Service Providers in the State of California.	Rulemaking 20-09-001 (Filed August 6, 2021)

OPENING COMMENTS OF THE SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS PERTAINING TO PROPOSED RULES FOR BROADBAND INFRASTRUCTURE DEPLOYMENT AND TO SUPPORT SERVICE PROVIDERS

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I. INTRODUCTION

Southern California Association of Governments (SCAG), a government agency organized pursuant to the California Joint Exercise of Powers Act (Cal. Govt. Code § 6500 *et seq.*), respectfully submits these opening comments ("Opening Comments") on the Order Instituting Rulemaking Regarding Broadband Infrastructure Deployment and to Support Service Providers in the State of California (R2009001) (the "Order").

By way of background, SCAG is a joint powers authority and the federally designated Metropolitan Planning Organization (MPO) for a six-county region of Southern California consisting of Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura counties. The SCAG region encompasses the aforementioned six counties, which includes 191 cities spanning a geographic area covering more than 38,000 square miles. Generally, the agency develops long-range regional transportation plans (which include sustainable communities' strategy and growth forecast components), regional transportation improvement programs, regional housing needs allocations and a portion of the South Coast Air Quality management plans.

Specifically relevant to the request for comments in the Order, SCAG has taken a regional leadership role in analyzing barriers to entry in broadband services to communities within its region, and is assembling data resources for members of the public, local jurisdictions with land use and regulatory authority, stakeholders and our member agencies with respect to broadband-related topics. Critical to the topic of broadband delivery is the related impact that broadband has in assisting underserved communities overcome historic and systemic inequities.

In response to Governor Newsom's Executive Order N-73-20 issued in August 2020, which directs state agencies to develop a "broadband action plan," SCAG's governing bord, the Regional Council, adopted Resolution No. 21-629-2, on February 4, 2021. SCAG Resolution No. 21-629-2 recognizes that "closing the digital divide is important and provides long-term community benefits that include the ability to fully engage in the digital economy, access existing and emerging services, expands economic opportunities and bridges the economic divide." SCAG believes that bringing broadband services to underserved communities assists with expanding economic opportunities to these communities and can assist in resolving historic inequities.

SCAG's Resolution No. 21-629-2 also expressed SCAG's support for "the FCC's (United States Federal Communications Commission) and CPUC's (California Public Utilities Commission [hereafter "CPUC" in these Opening Comments]) rules, regulations, programs and funding opportunities that support broadband deployment opportunities to bridge the digital divide." SCAG's governing board further directed SCAG staff, consistent with the aforementioned goals, to develop a "Broadband Action Plan" to, among other things, "seek partnerships with local jurisdictions with broadband implementation, including a regional broadband needs assessment to complement State efforts."

SCAG is one of the foremost conveners of public agencies, its member jurisdictions, stakeholders and members of the public on issues of regional importance. In this regard, SCAG has provided opportunities for stakeholders to discuss deployment decisions of broadband providers and is developing strategies to reduce the cost of entry and operation of broadband systems in communities, reduce the risks of delays during the planning, permitting and construction phases and creating new avenues for competitive entry.

In general, SCAG recommends that the CPUC consider identifying locations for the middle-mile network to enable last-mile deployment and prioritize areas that are underserved,

meaning areas that consist of: low-income households in urban areas, underserved rural and Tribal lands, and areas with a high populace of senior citizens (aged 65+). Pairing the investment in open-access middle-mile infrastructure with last-mile deployment in areas of greatest needs will enable the CPUC to achieve the goals envisioned in Executive Order N-73-20 – namely, bringing broadband access to all and helping to increase economic, health and educational activities, and sustainable environment for the residents of California.

II. COMMENTS

A. General Comments.

Enabling last-mile connections is essential to bridging the digital divide. According to SCAG's Connect SoCal Plan (2020-2045 Regional Transportation Plan/Sustainable Communities Strategies), the total population of the SCAG region is projected to grow by 9% from approximately19 million residents in 2019 to a projected 22.5 million in 2024.[1] Population growth is primarily expected to occur along major arterials and corridors. As a result, internet and broadband network congestion in growth areas is likely to increase.

While the FCC currently defines broadband as meeting 25 Mbps downstream/3 Mbps upstream, when factoring in network congestion and increased video resolution, these speeds are already obsolete or will quickly become obsolete within the near future. SCAG believes that new infrastructure should support a minimum of 100Mbps (and ideally up to 1 Gbps) as higher speeds are needed for telework (connecting to the cloud or video conferencing), tele-education and tele-health (higher resolution requires higher speeds and doctors can accurately assess a patient's condition).

B. Comments Pertaining to Issue 1 of Order - Identifying Existing Middle Mile Infrastructure.

SCAG offers the following comments pertaining to the specific inquiries listed below for Issue 1 of the Order.

What routes, if any, should be modified, removed from consideration, or revised? Provide an explanation for these suggestions.

Local governments across the Southern California region are directly impacted by middle-mile routes. This proceeding alone should not be the only venue for communities to

[1] Connect SoCal (2020-2045 Regional Transportation Plan/Sustainable Communities Strategy). Available at: https://scag.ca.gov/connect-socal.

offer feedback and advice for the network's location. Some local jurisdictions have staff dedicated to broadband infrastructure and digital inclusion planning, while others do not. The CPUC should support local governments by providing straightforward resources that communities can use to help verify the accuracy of state infrastructure maps and collect information about residents' capacity and affordability needs.

Public-private partnerships are important to solving the digital divide and expanding broadband access equitably. Public-private partnerships with a record of proven investment and work products should be encouraged and rewarded when they leverage previous public investments (by consumers and taxpayers) in existing middle-mile backhaul and backbone to avoid duplication of middle-mile infrastructure, serve public interests, and pursue innovation. Communities and internet service providers ("ISPs") also serve an important role providing accurate information about ongoing maintenance and other service needs. Reporting and detailed mapping (which are currently lacking) are critical to ensuring the state's middle-mile network is usable by those who do not have the resources or expertise to collect the information on their own.

Middle-mile and last-mile connections should be prioritized in underserved areas of greatest needs (low-income households, areas with a high concentration of at-risk youth/students and poor health), instead of merely focusing on areas with the highest *concentration* of people.

Final determination of middle-mile routes at this point may be premature. Due to lack of granular data, SCAG highly recommends that the CPUC work with the California Department of Transportation ("Caltrans"), county transportation commissions, regional metropolitan organizations, local government agencies, and ISPs for additional input.

SCAG also recommends that the CPUC refer to SCAG's Connect SoCal plan to determine additional routes that should be included on the list. The Connect SoCal Plan is located at https://scag.ca.gov/connect-socal.

Regardless of which routes are determined, it is important that the state connect middle-mile construction with last-mile deployment. It is essential to immediately focus on providing internet access to the hardest-to reach residents – rural unserved communities, Tribal Lands, and poor urban underserved neighborhoods.

In the context of these routes, what constitutes sufficient capacity and affordable rates?

Infrastructure that supports 25 Mbps downstream/3 Mbps upstream is insufficient. SCAG believes that infrastructure supporting a minimum of 100Mbps (and up to 1 Gbps) would qualify as sufficient capacity. Based on analysis by the California Emerging Technology Fund (CETF), the current cost of connecting a home that has no internet is conservatively estimated at $5,000 and upgrading a home that has poor internet service is $1,500.[2] SCGA believes an investment of approximately $8 billion is needed to bring Southern California "up to speed."[3] As such, an affordable rate should be set to approximately $20 a month or free (government-subsidized for public housing). Further, cost of installation, modem rental fees and other associated fees should be waived. Subsidies should be based on household poverty rates, neighborhood median income, concentration of public housing, social service recipients, or predefined income hierarchy.

For routes that are identified as being open access, with sufficient capacity and affordable rates, how should the Commission verify these claims (e.g., should Communications Division send a data request for service term sheets, rates, approximate dark fiber, lit fiber, and conduit capacity, etc.)? Are there any other criteria that should be used to verify these claims?

SCAG believes that the CPUC should send itemized requests, as stated, to verify claims of open access routes, sufficient capacity, and affordable rates and by checking billing and technical data (with the help of wireline testing), and coverage mapping. As stated previously, granular mapping data is currently inadequate. Without robust data, it will be difficult to determine the factors stated above. SCAG encourages the CPUC to work with the Caltrans, county transportation commissions, regional metropolitan organizations, local government agencies, broadband consortia, and other stakeholders for additional input.

C. Comments Pertaining to Issue 2 of Order – Priority Areas.

SCAG offers the following comments pertaining to the specific inquiries listed below for Issue 2 of the Order.

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[2] "California Coalition Calls for Immediate Funding to Close the Digital Divide" Available at: https://www.cetfund.org/california-coalition-calls-for-immediate-funding-to-close-the-digital-divide/.
[3] *Ibid.*

Is it reasonable to assume counties with a disproportionately high number of unserved households (e.g., 50% or more unserved at 100 Mbps download) are areas with insufficient middle-mile network access?

It is reasonable to assume that counties with a disproportionately high number of unserved households are areas with insufficient middle-mile network access. However, the standard for "disproportionately high number of unserved households" should be carefully evaluated to make sure that the percentage figure accurately reflects the level of need. Further, detailed mapping data, speed test data and other data is necessary to make an adequate determination. Failure to do so can result in redundant infrastructure and wasting resources in areas that are low priority.

What other indicators, if any, should the Commission use to identify priority statewide open-access middle-mile broadband network locations (i.e., built expeditiously, areas with no known middle-mile network access, regions underserved by middle-mile networks, regions without sufficient capacity to meet future middle-mile needs)?

Indicators the CPUC should use to identify priority statewide open access middle-mile broadband network locations include: low-income households, rural areas, Tribal communities, areas with a high concentration of senior citizens (ages 65+), areas with slow economic growth or blight, population density, areas with a high concentration of at-risk youth/students and residents with higher risk of poor health, median household income, bandwidth/speeds, and proximity to anchor institutions such as schools, hospitals, health clinics, public housing, libraries.

D. Comments Pertaining to Issue 3 of Order – Assessing the Affordability of Middle Mile Infrastructure.

SCAG offers the following comments pertaining to the specific inquiries listed below for Issue 3 of the Order.

Are there other factors or sources of information the Commission should consider for determining whether these services are affordable?

The California Emerging Technology Fund (CETF) estimated the current cost of connecting a home that has no internet is conservatively estimated at $5,000 and upgrading a home that has poor internet service is $1,500.[4] An investment of approximately $8 billion is

[4] *Ibid.*

needed to bring Southern California up to speed. As such, an affordable rate should be set at approximately $25/month or free (government-subsidized for public housing). Further, cost of installation, modem rental fees and other associated fees should be waived. Subsidies should be based on household poverty rates, neighborhood median income, concentration of public housing, social service recipients, or predefined income hierarchy.

With the recent legislative actions, SCAG anticipates the state may invest $6 billion towards broadband, and the federal infrastructure bill presently commits $65 billion towards broadband expansion.[5] SCAG encourages the CPUC to work with state, regional, local, and private sector entities, to determine the appropriate allocation costs and areas of greatest needs for this endeavor. Further, SCAG believes it is necessary to secure and optimize the use of federal funds and recommends that middle-mile funding, which is not allocated by December 31, 2022, should revert to the California Advanced Services (CASF) Fund Infrastructure Grant Account. By doing so, local jurisdictions will have further opportunities to apply for grants to build out broadband pilot projects, middle-mile and last-mile projects that are suited to their needs.[6]

Is it reasonable for the costs of these services to change depending on the location where the service is provided (i.e., rural vs urban)?

The CPUC asks if it is reasonable for the costs of these services to change depending on whether the location of where the service provided is rural or urban. Californians living in rural and urban areas alike, as well as those living on Tribal lands, are all impacted by broadband infrastructure gaps. While middle-mile solutions can address statewide disparities, planning must include strategies for connecting communities that face unique challenges to bringing broadband access and adoption within reach.

In rural areas, remote locations, terrain, line of sight and other issues are a factor. Comparatively, in urban areas, population density, lack of funding and community character ordinances (which forbid the use of aerial fiber or micro trenching projects) can be a factor. For example, in Imperial County the cost of broadband is approximately $68/month, whereas in Los

[5] AB-156 Communications: Broadband Available at: https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220AB156.
[6] CASF Broadband Infrastructure Grant Account. Available at: https://www.cpuc.ca.gov/industries-and-topics/internet-and-phone/california-advanced-services-fund/casf-infrastructure-grant.

Angeles County, the cost of broadband is approximately $35/month.[7] It's safe to assume that rural areas have higher subscription rates because the cost of developing infrastructure (new) is more expensive when compared to urban areas.[8]

Several California cities have conducted digital equity studies and developed digital inclusion plans.[9] The results offered in these reports shed light on existing connectivity disparities, which can help inform the CPUC's overall efforts to develop a workable middle-mile network. Understanding the unique challenges that each community faces is a critical step in developing policies to guide the state's middle-mile expansion efforts.

Tribal governments are eligible for funding through the National Telecommunications and Information Administration's Tribal Connectivity Grant program, which includes funding for middle-mile networks.[10] The CPUC should work with California's 109 Tribal communities to seek synergies among connectivity projects. Communication and partnership are key to ensuring that concurrent deployment projects complement each other, expanding broadband service to everyone who remains disconnected.

Working together with Tribal and local governments is a necessary step to ensuring that middle-mile connectivity brings tangible benefits to communities of all si1zes and topographies.

E. Comments Pertaining to Issue 4 of Order – Leasing Existing Infrastructure.

SCAG offers the following comments pertaining to the specific inquiries listed below for Issue 4 of the Order.

If there is existing open access communications infrastructure with sufficient capacity to meet the state's needs, should the state purchase IRUs from that network?

The CPUC asks whether the state should purchase capacity from existing open access communication networks. SCAG recommends that the CPUC prepare a plan or evaluate various business practices to determine the appropriate level of engagement, investment, and practices to facilitate rapid deployment and competition within the private sector, while providing the

[7] M-Lab and Broadband Now (2021).
[8] *Ibid.*
[9] *See e.g.* Comments of Next Century Cities on Phase II-B Assigned Commissioners Ruling, 5-6 (July 2, 2021), https://nextcenturycities.org/wp-content/uploads/2021.07.02-NCC-Comments-R.20-09-001-Phase-II-B.pdf.
[10] *See* press release, Department of Commerce's NTIA Announces Nearly $1 Billion in Funding to Expand Broadband on Tribal Land (June 3, 2021), https://www.ntia.doc.gov/press-release/2021/department-commerce-s-ntia-announces-nearly-1-billion-funding-expand-broadband.

consumer a reasonable rate. The state should carefully evaluate if a public option, private option or a joint public/private option is appropriate for a given location.

In some cases, publicly built open-access middle-mile network developments have been acquired by private providers.[11] If any part of California's network is ultimately sold to private providers, the CPUC should ensure that open-access policies remain in place. This practice helps ensure clarity and confidence from last-mile providers who rely on the open nature of the network to serve communities, even if ownership changes hands.

As stated previously, SCAG recommends that the CPUC consider connecting middle-mile construction with last-mile deployment. The construction of publicly subsidized open-access middle-mile infrastructure that includes last-mile deployment achieves the best of both objectives. It assures immediate internet access for unserved and underserved households while also allowing other last-mile providers to access the middle-mile, thereby increasing competition and expanding consumer choices to include moderate prices.

Is there any value in the state purchasing an IRU from the network if capacity is already available?

As mentioned previously, best value is determined based on the appropriate business model for a given a location. Assuming adequate data is collected, it is important that the state or other entities, not overbuild or develop redundant networks. If existing capacity is available, it should be utilized immediately.

If the state relies on IRUs for the development of the statewide network, will the generational investment that this funding provides be diminished when the IRU leases end 20 to 30 years later? Will existing networks run out of spare capacity?

Technology increases at an exponential rate and, without properly planning, it is likely that within five years (or less) today's network capabilities will be obsolete. Leasing the network to ISPs or local jurisdictions should come with conditions. Conditions that should be considered include prohibiting caps on data usage, scalability to accommodate increased broadband speeds, maintenance, and integration of emerging technology.

[11] *See* If We Build It, Will They Come, Lessons from Open-Access Middle-Mile Networks, 10 (Dec. 2020), https://www.benton.org/sites/default/files/OAMM_networks.pdf.

F. Comments Pertaining to Issue 5 of Order – Interconnection.

SCAG offers the following comments pertaining to the specific inquiries listed below for Issue 5 of the Order.

At what points should the statewide network interconnect (e.g., to other networks, servers, etc.)?

SCAG recommends that the CPUC continue to coordinate with public and private stakeholders such as the Caltrans, county transportation commissions, regional metropolitan organizations, local government agencies, broadband consortia, ISPs and other stakeholders to identify interconnection points and to ensure such interconnection is adequately planned. Public agencies or private entities may be interested in making connections to the middle-mile network in the future, but may lack resources or expertise to conduct a detailed technical analysis to provide meaningful input on network interconnection points. Therefore, SCAG urges that the CPUC provide ample opportunity for stakeholder feedback, beyond this rulemaking, as deployment of the open access middle-mile network rolls out. Continuing input is necessary to ensure last mile deployments can be made and prioritized in areas of greatest needs.

Are additional exchange points necessary or strategic, and if so, where?

Consistent with our comments above, SCAG recommends that the CPUC coordinate with public and private stakeholders such as Caltrans, county transportation commissions, regional metropolitan organizations, local government agencies, broadband consortia, ISPs and other stakeholders to identify additional strategic exchange points. These locations should prioritize connections in areas of greatest need (underserved and rural and Tribal communities).

G. Comments Pertaining to Issue 6 of Order – Network Route Capacity.

SCAG offers the following comments pertaining to the specific inquiries listed below for Issue 6 of the Order.

Are there other requirements or standards the Commission needs to consider to determine sufficient capacity?

As noted above, SCAG urges the CPUC to develop a middle-mile network that meets today's demand as well as projected needs. The CPUC may want to evaluate aggregate, simultaneous demand across all communities that may be served by the middle-mile. This may include households, businesses, or other communication needed to enable municipal operations, connect public facilities or anchor institutions (libraries, healthcare facilities, public safety

stations). The CPUC may also want to consider new demand generated by the open access middle-mile network, such as new digital businesses that may be established as a result of the provision of service in currently underserved rural or Tribal areas. At the household level, the CPUC may want to assume greater demand than experienced today to ensure the network can evolve as technology and broadband demands grow well into the future. Establishing demand based on bandwidth and quality of service (including upstream and low latency) may address evolving uses and applications of broadband. The CPUC should also consider computing simultaneous aggregate bandwidth demand during busier hours to ensure the middle mile does not become the bottleneck for delivery of last mile services.

Should these factors change based on the population density and distance from the core network?

While population density and distance are important factors for the CPUC to consider, they should not be to sole determinants. SCAG recommends that the CPUC consider aggregate, simultaneous demand across all the communities that are being served by the middle mile to drive the capacity and design of the network. Consideration should also be given to prioritizing underserved communities first, then current and future demand driven by growth in population, jobs, or new demand induced by the open access middle-mile network.

H. Additional Specific Comments for Consideration.

In addition to those items specifically requested for comment, SCAG also encourages the CPUC to consider the following:

Connect middle-mile construction with last-mile deployment. It is essential to immediately focus on providing internet access to the hardest-to-reach residents—rural unserved communities, Tribal Lands, and poor urban underserved neighborhoods. The construction of a middle-mile only network will not assure last-mile connectivity in a reasonable timeframe. However, construction of publicly subsidized open-access middle-mile infrastructure that includes last-mile deployment achieves the best of both objectives: It assures immediate internet access for unserved and underserved households, while also allowing other last-mile providers to access the middle mile. This increases competition and expands consumer choices.

Incorporate effective public-private partnerships. Public-private partnerships with a record of proven investment and work product should be encouraged and rewarded when they leverage previous public investments (by consumers and taxpayers) in existing middle-mile

backhaul and backbone to avoid duplication of middle-mile infrastructure, serve public interests, and encourage innovation.

Coordinate actions among local and regional government. State investment should be aligned with collaboration among local governments through regional agencies, including regional consortia and MPOs, to streamline and expedite permitting and achieve economies of scale.

CASF Infrastructure Grant Account. SCAG recommends that middle mile funding, which is not allocated by December 31, 2022, should revert to the CASF Infrastructure Grant Account. In addition, SCAG is encouraged by efforts to review and revise CASF rules to broaden and maximize more efficient participation. Stakeholder collaboration focused on aligning CASF with these objectives also should be encouraged.

III. CONCLUSION

SCAG appreciates the opportunity to provide these comments and requests further partnership with the CPUC and other stakeholders to support the expansion of the open access middle-mile network. Building collaborative and transparent partnerships with public and private stakeholders is critical to the vision outlined in the state's Broadband Action Plan. SCAG is committed to expanding broadband service to the region's underserved areas. SCAG encourages the CPUC to continue to provide opportunities for coordination with regional governments like SCAG (and other MPOs), broadband consortia, and local jurisdictions to maximize our public investments and meet mutual objectives to bridge the digital divide.

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Respectfully submitted,

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